

## CLAIMS

1. Acquisition module for the measurement of physical parameters, comprising at least one analogue-to-digital  
5 converter and at least one input connector capable of receiving a sensor, characterized in that it also comprises a supply source and a reference impedance arranged in series between said supply source and a terminal of the input connector; and in that said  
10 analogue-to-digital converter comprises a reference input supplied with a voltage taken at the terminals of said reference impedance and a conversion input supplied with a voltage taken via the input connector at the sensor terminals, and in that it also comprises means for  
15 delivering an image of the physical parameter measured by the sensor.

2. Acquisition module according to claim 1, characterized in that it comprises a memory for storing parameters and  
20 variables.

3. Acquisition module according to claim 1 or 2, characterized in that it consists of a card which can be plugged into a processing unit such as a microcomputer.  
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4. Acquisition module according to claim 3, characterized in that the supply source originates from the processing unit.

30 5. Acquisition module according to any one of claims 1 to 3, characterized in that the supply source is internal to the analogue-to-digital converter.

6. Acquisition module according to any one of the preceding claims, characterized in that the supply source is programmable.

5 7. Acquisition module according to any one of the preceding claims, characterized in that it comprises processing means capable of processing the digital data originating from the analogue-to-digital converter in order to determine a value of the physical parameter  
10 measured.

8. Acquisition module according to any one of the preceding claims, characterized in that it comprises means for protection against overvoltage arranged between  
15 the analogue-to-digital converter on the one hand and the reference resistor and the connector on the other.

9. Acquisition module according to one of the preceding claims, characterized in that the analogue-to-digital  
20 converter is of the differential input type.

10. Acquisition module according to claim 9, characterized in that the analogue-to-digital converter consists of a Delta-Sigma converter.

25 11. Acquisition module according to any one of claims 1 to 8, characterized in that the analogue-to-digital converter is of the common mode input type; and in that it comprises a first differential amplifier arranged  
30 between the reference input and the reference impedance and a second differential amplifier arranged between the conversion input and the sensor.

12. Acquisition module according to any one of the preceding claims, characterized in that it comprises a plurality of acquisition channels.